

## A Description on Effects of Sugar on Health

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### DESCRIPTION

Sugar has long been a staple in our diets, providing the sweet taste that many of us crave. However, concerns about its health implications have grown, leading to a rise in the use of artificial sweeteners as alternatives. This article explores the health implications of sugar and artificial sweeteners, highlighting what scientific research says about their impact on health.

#### The effects of sugar on health

Sugar, particularly in its refined form, has been linked to a variety of health issues. The World Health Organization (WHO) recommends that added sugars should make up no more than 10% of daily caloric intake, yet many diets far exceed this limit. Consuming high amounts of sugar, especially from sugary drinks and processed foods, can lead to excess calorie intake and weight gain. A 2016 study published in "Obesity Reviews" found a strong correlation between sugar-sweetened beverages and obesity in both children and adults. High sugar consumption has been associated with an increased risk of type 2 diabetes. A study in the "British Medical Journal" (BMJ) in 2019 found that high intake of sugary beverages significantly increased the risk of developing type 2 diabetes.

Sugar intake has been linked to cardiovascular issues. A 2014 study in *Journal of the American Medical Association (JAMA) Internal Medicine* revealed that people who consumed 17-21% of their calories from added sugars had a 38% higher risk of dying from heart disease compared to those who consumed less than 10%. Sugar is a major contributor to tooth decay. The bacteria in our mouths feed on sugar, producing acid that erodes tooth enamel, leading to cavities. The "Journal of Dental Research" published a study in 2018 showing a clear link between high sugar intake and dental caries.

Artificial sweeteners have gained popularity as a way to enjoy sweet flavors without the caloric impact of sugar. Common artificial sweeteners include aspartame, sucralose, saccharin, and acesulfame potassium. While they offer a low-calorie alternative to sugar, their health implications are complex. Although

artificial sweeteners contain fewer calories, their impact on weight loss is uncertain. A 2017 review in the *Canadian Medical Association Journal (CMAJ)* suggested that artificial sweeteners might not necessarily lead to weight loss and could even contribute to weight gain by affecting appetite regulation and insulin sensitivity.

Some studies suggest that artificial sweeteners might alter gut microbiota, potentially affecting metabolic health. A 2014 study in "Nature" found that artificial sweeteners, especially saccharin, could disrupt gut bacteria, leading to glucose intolerance in mice. Similar effects were observed in some human participants. The long-term effects of artificial sweeteners on health are still being studied. A 2020 study in *Public Library of Science (PLOS) Medicine* found a potential link between high consumption of artificial sweeteners and an increased risk of cardiovascular events, but the evidence remains inconclusive.

There is ongoing research into whether artificial sweeteners can influence behavior or cognitive function. A 2013 study in appetite suggested that consuming artificial sweeteners could affect the brain's reward system, potentially leading to increased cravings for sweet foods. Given the health implications of both sugar and artificial sweeteners, a balanced approach is recommended. Reducing overall sugar intake by choosing whole foods and natural sweeteners like honey or maple syrup in moderation can be beneficial. At the same time, depending on artificial sweeteners should be done with caution, and more research is needed to fully understand their long-term effects.

### CONCLUSION

Sugar and artificial sweeteners each carry their own health risks and benefits. While sugar is linked to obesity, diabetes, heart disease, and dental issues, artificial sweeteners offer a low-calorie alternative with uncertain long-term effects on metabolic and cardiovascular health. The key to a healthier diet is moderation, focusing on whole foods, and reducing the reliance on overly processed sweeteners, whether natural or artificial. By making informed choices, we can navigate the complex perspective of sweeteners and prioritize our health.

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**Received:** 16-Apr-2024, Manuscript No. JFMSH-24-31353; **Editor assigned:** 19-Apr-2024, PreQC No. JFMSH-24-31353 (PQ); **Reviewed:** 03-May-2024, QC No. JFMSH-24-31353; **Revised:** 10-May-2024, Manuscript No. JFMSH-24-31353 (R); **Published:** 17-May-2024, DOI: 10.35841/2476-2059.24.9.289.

**Citation:** Dhakal S (2024) A Description on Effects of Sugar on Health. *J Food Microbial Saf Hyg*. 9:289.

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